square inch) which is equivalent to 1.6 cm^2 (0.25 square inch) per pound based on an average of all containers examined.

(2) Canned tomatoes shall be tested by the following method to determine whether or not they meet the requirements of paragraphs (b)(1) (i) and (ii) of this section:

(i) Remove lid from container, but in the case of a container with lid attached by double seam, do not remove or alter the height of the double seam. Tilt the opened container so as to distribute the contents over the meshes of a circular sieve which has previously been weighed. The diameter of the sieve used is 20.3 centimeters (8 inches) if the quantity of the contents of the container is less than 1.4 kilograms (3 pounds) or 30.5 centimeters (12 inches) if such quantity is 1.4 kilograms (3 pounds) or more. The meshes of such sieve are made by so weaving wire of 1.4 mm (0.054 inch) diameter as to form square openings 11.3 mm by 11.3 mm (0.446 inch by 0.446 inch). Without shifting the tomatoes, so incline the sieve as to facilitate drainage of the liquid. Two minutes from the time drainage begins, weigh the sieve and drained tomatoes. The weight so found, less the weight of the sieve, shall be considered to be the drained weight.

(ii) Remove from the sieve the drained tomatoes, cut out and segregate successively those portions of least redness until 50 percent of the drained weight has been so segregated. Comminute the segregated portions to a uniform mixture without removing or breaking the seeds. Fill the mixture into a black container to a depth of at least 25.4 mm (1 inch). Free the mixture from air bubbles, and skim off or press below the surface all visible seeds. Compare the color of the mixture, in full diffused daylight or its equivalent, with the blended color of combinations of the following concentric Munsell color discs of equal diameter, or the color equivalent of such discs:

(*a*) Red—Munsell 5 R 2.6/13 (glossy finish).

(*b*) Yellow—Munsell 2.5 YR 5/12 (glossy finish).

(*c*) Black—Munsell N 1/ (glossy finish).

(*d*) Grey—Munsell N 4 (mat finish).

(3) Determine compliance as specified in § 155.3(b).

(4) If the quality of canned tomatoes falls below the standard prescribed in paragraph (b)(1) of this section, the label shall bear the general statement of substandard quality specified in § 130.14(a) of this chapter in the manner and form therein specified; if, however, the quality of canned tomatoes falls below standard with respect to only one of the factors of quality specified by paragraphs (b)(1) (i) to (iii) of this section, there may be substituted for the second line of such general statement of substandard quality (''Good Food—Not High Grade'') a new line, appropriate for the corresponding subparagraph designation of paragraph (b)(1) of this section which the canned tomatoes fail to meet, to read as follows:

(i) ''Poor color'' or

(ii) ''Excessive peel'' or

(iii) ''Excessive blemishes''.

(c) *Fill of container.* (1) The standard of fill of container for canned tomatoes is a fill of not less than 90 percent of the total capacity of the container, as determined by the general method for fill of containers prescribed in § 130.12(b) of this chapter.

(2) Determine compliance as specified in § 155.3(b).

(3) If canned tomatoes fall below the standard of fill of container prescribed in paragraph (c)(1) of this section, the label shall bear the general statement of substandard fill specified in § 130.14(b) of this chapter, in the manner and form therein specified.

[42 FR 14449, Mar. 15, 1977, as amended at 43 FR 12858, Mar. 28, 1978; 43 FR 30274, July 14, 1978; 45 FR 43400, June 27, 1980; 58 FR 17103, Apr. 1, 1993; 59 FR 15051, Mar. 31, 1994]

§ 155.191 Tomato concentrates.

(a) *Identity*—(1) *Definition.* Tomato concentrates are the class of foods each of which is prepared by concentrating one or any combination of two or more of the following optional tomato ingredients:

(i) The liquid obtained from mature tomatoes of the red or reddish varieties (*Lycopersicum esculentum* P. Mill).

(ii) The liquid obtained from the residue from preparing such tomatoes for

canning, consisting of peelings and cores with or without such tomatoes or pieces thereof.

(iii) The liquid obtained from the residue from partial extraction of juice from such tomatoes.

Such liquid is obtained by so straining the tomatoes, with or without heating, as to exclude skins (peel), seeds, and other coarse or hard substances in accordance with good manufacturing practice. Prior to straining, food-grade hydrochloric acid may be added to the tomato material in an amount to obtain a pH no lower than 2.0. Such acid is then neutralized with food-grade sodium hydroxide so that the treated tomato material is restored to a pH of 4.2±0.2. Water may be added to adjust the final composition. The food contains not less than 8.0 percent tomato soluble solids as defined in §155.3(e). The food is preserved by heat sterilization (canning), refrigeration, or freezing. When sealed in a container to be held at ambient temperatures, it is so processed by heat, before or after sealing, as to prevent spoilage.

(2) *Optional ingredients.* One or any combination of two or more of the following safe and suitable ingredients may be used in the foods:

(i) Salt (sodium chloride formed during acid neutralization shall be considered added salt).

(ii) Lemon juice, concentrated lemon juice, or organic acids.

(iii) Sodium bicarbonate.

(iv) Water, as provided for in paragraph (a)(1) of this section.

(v) Spices.

(vi) Flavoring.

(3) *Labeling.* (i) The name of the food is:

(*a*) ''Tomato puree'' or ''tomato pulp'' if the food contains not less than 8.0 percent but less than 24.0 percent tomato soluble solids.

(*b*) ''Tomato paste'' if the food contains not less than 24.0 percent tomato soluble solids.

(*c*) The name ''tomato concentrate'' may be used in lieu of the name ''tomato puree,'' ''tomato pulp,'' or ''tomato paste'' whenever the concentrate complies with the requirements of such foods; except that the label shall bear the statement ''for remanufacturing purposes only'' when the concentrate is packaged in No. 10 containers (3.1 kilograms or 109 avoirdupois ounces total water capacity) or containers that are smaller in size.

(*d*) ''Concentrated tomato juice'' if the food is prepared from the optional tomato ingredient described in paragraph (a)(1)(i) of this section and is of such concentration that upon diluting the food according to label directions as set forth in paragraph (a)(3)(iii) of this section, the diluted article will contain not less than 5.0 percent by weight tomato soluble solids.

(ii) The following shall be included as part of the name or in close proximity to the name of the food:

(*a*) The statement ''Made from'' or ''Made in part from,'' as the case may be, ''residual tomato material from canning'' if the optional tomato ingredient specified in paragraph (a)(1)(ii) of this section is present.

(*b*) The statement ''Made from'' or ''Made in part from,'' as the case may be, ''residual tomato material from partial extraction of juice'' if the optional tomato ingredient specified in paragraph (a)(1)(iii) of this section is present.

(*c*) A declaration of any flavoring that characterizes the product as specified in §101.22 of this chapter and a declaration of any spice that characterizes the product, e.g., ''Seasoned with _____,'' the blank to be filled in with the words ''added spice'' or, in lieu of the word ''spice,'' the common name of the spice.

(iii) The label of concentrated tomato juice shall bear adequate directions for dilution to result in a diluted article containing not less than 5.0 percent by weight tomato soluble solids; except that alternative methods may be used to convey adequate dilution directions for containers that are larger than No. 10 containers (3.1 kilograms or 109 avoirdupois ounces total water capacity).

(iv) Label declaration. Each of the ingredients used in the food shall be declared on the label as required by the applicable sections of parts 101 and 130 of this chapter; except that water need not be declared in the ingredient statement when added to adjust the tomato

soluble solids content of tomato concentrates within the range of soluble solids levels permitted for these foods.

(v) Determine percent tomato soluble solids as specified in § 155.3(e). Determine compliance as specified in § 155.3(b). A lot shall be deemed to be in compliance for tomato soluble solids as follows:

(*a*) The sample average meets or exceeds the required minimum.

(*b*) The number of sample units that are more than 1 percent tomato soluble solids below the minimum required does not exceed the acceptance number in the sampling plans set forth in § 155.3(c)(2).

(b) *Quality.* (1) The standard of quality for tomato concentrate (except for concentrated tomato juice, which when diluted to 5.0 percent tomato soluble solids shall conform to the standard of quality for tomato juice set forth in § 156.145 of this chapter) is as follows:

(i) The strength and redness of color of the food, when diluted with water (if necessary) to 8.1±0.1 percent tomato soluble solids is not less than the composite color produced by spinning the Munsell color discs in the following combination:

53 percent of the area of Disc 1;
28 percent of the area of Disc 2; and
19 percent of the area of either Disc 3 or Disc 4; or
9½ percent of the area of Disc 3 and 9½ percent of the area of Disc 4, whichever most nearly matches the appearance of the sample.

(ii) Not more than one whole seed per 600 grams (21 ounces).

(iii) Not more than 36 of the following defects, either singly or in combination, per 100 grams (3.5 ounces) of the product when diluted with water to 8.1±0.1 percent tomato soluble solids:

(*a*) Pieces of peel 5 millimeters (0.20 inch) or greater in length (without unrolling).

(*b*) Pieces of seed (seed particles) 1 millimeter (0.039 inch) or greater in length.

(*c*) Blemishes, such as dark brown or black particles (specks)—not more than four exceed 1.6 millimeters (0.0625 inch) in length of which not more than one exceeds 3.2 millimeters (0.125 inch) and none exceed 6.4 millimeters (0.25 inch).

(2) *Methodology.* Dilute with water, if necessary, to 8.1±0.1 percent tomato soluble solids. (i) Determine strength and redness of color as prescribed in § 155.3(d).

(ii) Whole seeds—Weigh out 600 grams (21 ounces) of the well-mixed, diluted concentrate; place a U.S. No. 12 screen (1.68 millimeters (0.066 inch) openings) over the sink drain; transfer the product sample onto the screen; rinse container thoroughly with water and pour through screen; flush sample through screen by using an adequate spray of water; check screen for whole seeds; apply the appropriate allowance.

(iii) Peel, pieces of seed, and blemishes—Spread the prepared concentrate evenly on a large white tray and remove the individual defects, identify, classify, and measure.

(3) *Sampling and acceptance.* Determine compliance as specified in § 155.3(b).

(4) If the quality of the tomato concentrate falls below the standard prescribed in paragraph (b) (1) and (3) of this section, the label shall bear the general statement of substandard quality specified in § 130.14(a) of this chapter, in the manner and form therein specified, but in lieu of such general statement of substandard quality when the quality of the tomato concentrate falls below the standard in one or more respects, the label may bear the alternative statement, ''Below Standard in Quality _____,'' the blank to be filled in with the words specified after the corresponding paragraph(s) under paragraph (b)(1) of this section which such tomato concentrate fails to meet, as follows:

(i) ''Poor color.''

(ii) ''Excessive seeds.''

(iii)(*a*) ''Excessive pieces of peel.''

(*b*) ''Excessive pieces of seed.''

(*c*) ''Excessive blemishes.''

(c) *Fill of container.* (1) The standard of fill of container for tomato concentrate, as determined by the general method for fill of container prescribed in § 130.12(b) of this chapter, is not less than 90 percent of the total capacity, except when the food is frozen.

(2) Determine compliance as specified in § 155.3(b).

(3) If the tomato concentrate falls below the standard of fill prescribed in

paragraph (c) (1) and (2) of this section, the label shall bear the general statement of substandard fill specified in §130.14(b) of this chapter, in the manner and form therein prescribed.

[48 FR 3954, Jan. 28, 1983, as amended at 49 FR 15073, Apr. 17, 1984; 58 FR 2883, Jan. 6, 1993; 58 FR 17104, Apr. 1, 1993]

§155.194 Catsup.

(a) *Identity*—(1) *Definition.* Catsup, ketchup, or catchup is the food prepared from one or any combination of two or more of the following optional tomato ingredients:

(i) Tomato concentrate as defined in §155.191(a)(1), except that lemon juice, concentrated lemon juice, or safe and suitable organic acids may be used in quantities no greater than necessary to adjust the pH, and in compliance with §155.191(b).

(ii) The liquid derived from mature tomatoes of the red or reddish varieties *Lycopersicum esculentum* P. Mill.

(iii) The liquid obtained from the residue from preparing such tomatoes for canning, consisting of peelings and cores with or without such tomatoes or pieces thereof.

(iv) The liquid obtained from the residue from partial extraction of juice from such tomatoes.

Such liquid is strained so as to exclude skins, seeds, and other coarse or hard substances in accordance with current good manufacturing practice. Prior to straining, food-grade hydrochloric acid may be added to the tomato material in an amount to obtain a pH no lower than 2.0. Such acid is then neutralized with food-grade sodium hydroxide so that the treated tomato material is restored to a pH of 4.2±0.2. The final composition of the food may be adjusted by concentration and/or by the addition of water. The food may contain salt (sodium chloride formed during acid neutralization shall be considered added salt) and is seasoned with ingredients as specified in paragraph (a)(2) of this section. The food is preserved by heat sterilization (canning), refrigeration, or freezing. When sealed in a container to be held at ambient temperatures, it is so processed by heat, before or after sealing, as to prevent spoilage.

(2) *Ingredients.* One or any combination of two or more of the following safe and suitable ingredients in each of the following categories is added to the tomato ingredients specified in paragraph (a)(1) of this section:

(i) Vinegars.

(ii) Nutritive carbohydrate sweeteners. Such sweeteners if defined in part 168 of this chapter shall be as defined therein.

(iii) Spices, flavoring, onions, or garlic.

(3) *Labeling.* (i) The name of the food is ''Catsup,'' ''Ketchup,'' or ''Catchup.''

(ii) The following shall be included as part of the name or in close proximity to the name of the food:

(*a*) The statement ''Made from'' or ''Made in part from,'' as the case may be, ''residual tomato material from canning'' if the optional tomato ingredient specified in paragraph (a)(1)(iii) of this section or tomato concentrate containing the ingredient specified in §155.191(a)(1)(ii) is present.

(*b*) The statement ''Made from'' or ''Made in part from,'' as the case may be, ''residual tomato material from partial extraction of juice'' if the optional tomato ingredient specified in paragraph (a)(1)(iv) of this section or tomato concentrate containing the ingredient specified in §155.191(a)(1)(iii) is present.

(iii) Label declaration. Each of the ingredients used in the food shall be declared on the label as required by the applicable sections of parts 101 and 130 of this chapter; except that the name ''tomato concentrate'' may be used in lieu of the names ''tomato puree,'' ''tomato pulp,'' or ''tomato paste'' and when tomato concentrates are used, the labeling requirements of §155.191(a)(3)(ii)(*a*) and (a)(3)(ii)(*b*) do not apply.

(b) *Quality.* (1) The standard of quality for catsup is as follows: The consistency of the finished food is such that its flow is not more than 14 centimeters in 30 seconds at 20 °C when tested in a Bostwick Consistometer in the following manner: Check temperature of mixture and adjust to 20±1 °C. The trough must also be at a temperature close to 20 °C. Adjust end-to-end level of Bostwick Consistometer by means of